



IDEM's Compliance & Technical Assistance Program (CTAP)

Automobile Refinishing

326 IAC 8-10

(Volatile Organic Compounds – VOCs)

40 CFR 63, Subpart HHHHHH (6H)

(Hazardous Air Pollutants – HAPs)

Mark Stoddard
Environmental Engineer

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Clean Air Act Amendments of 1990

- Define area sources
- Establish list – **Urban Air Toxics**
 - 68 source categories
 - 30 of 187 hazardous air pollutants
 - Greatest threat to public health
 - In the largest number of urban areas



Not MACT, but GACT

- Generally Available Control Technology
- Commonly used technology & practices



Subpart 6H

- Paint Stripping
- Auto Body Refinishing
- Spray application of coatings to metal or plastic (***6H exempt if units subject to 6X***)
- Proposed initially September 17, 2007
- Federal rule correction February 13, 2008



6H HAP Reductions

- Cadmium, Chromium, Lead, Manganese, Nickel and Methylene Chloride
- Petition for **exemption** is an option



Environmental Results Project

- Region 5
- 2010 – 2013
 - Measure baseline performance
 - Develop self-certification checklist
 - Indiana Auto Body Association presentations 2011 & 2013
 - CTAP site visits
 - EPA Region 5 inspections
 - Final report September 2013



6H Exemptions

- 2 vehicles annually without compensation
- Armed Forces & military munitions
- Paint training center, ***only training requirements***
- Research and laboratory
- Quality control



6H Exemptions by Definition

Coating does **not** include:

- Protective oils
- Adhesive
- Sealants, maskants or caulking
- Temporary or removable coatings for protection during fabrication & shipment



Also excluded

- Spray-applied coating using:
 - Paint cup capacity less than 3.0 fluid ounces or less (89 cubic centimeters)
 - Non-refillable aerosol cans
 - Thermal spray operations (Subpart 6W might apply)
- Surface coated/stripped parts that are not sold or moved off-site





Paint Manufacturers & Distributors

- Paint HAP
- Employee training



6H Surface Preparation Products

- Paint stripping using products containing Methylene Chloride must include a plan
- The plan must:
 - Evaluate alternatives
 - Minimize evaporation
 - Minimize exposure
 - Ensure proper storage and disposal
- Written plan if usage is 150 gallons or more annually



SAFETY DATA SHEET

Klean-Strip Aircraft Paint Remover

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Printed: 03/14/2016

Revision: 03/11/2016

Supersedes Revision: 08/06/2015

disorders; kidney, liver or pancreatic damage; insomnia; giddiness; and death. May cause additional symptoms listed under inhalation.

Medical Conditions Generally Aggravated By Exposure: Diseases of the blood; skin; eyes; liver; kidneys; lungs; cardiovascular; pulmonary; and respiratory systems; alcoholism; and rhythm disorders of the heart.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
75-09-2	Dichloromethane {Methylene chloride; R-30; Freon 30}	60.0 -100.0 %
67-56-1	Methanol {Methyl alcohol; Carbinol; Wood alcohol}	5.0 -10.0 %
1336-21-6	Ammonium hydroxide {Ammonia aqua; Ammonium liquor}	< 5.0 %
1330-20-7	Xylene (mixed isomers) {Benzene, dimethyl-}	< 5.0 %
64742-47-8	Hydrotreated light distillate (petroleum)	< 5.0 %
68132-50-3	Fatty acid soap	< 5.0 %
100-41-4	Ethylbenzene {Ethylbenzol; Phenylethane}	< 3.0 %

Additional Chemical Information

Specific percentage of composition is being withheld as a trade secret.

6H Permissible Spray Guns

- Electrostatic
- HVLP (High volume and low pressure)
- Airless
- Air assisted airless





6H Permissible Spray Guns

- HVLP equivalent
 - www.epa.ohio.gov/dapc/regs/3745_21/hvlp_electro.aspx
 - EPA approval letters, i.e., ANEST IWATA Supernova model WS400, January 15, 2013

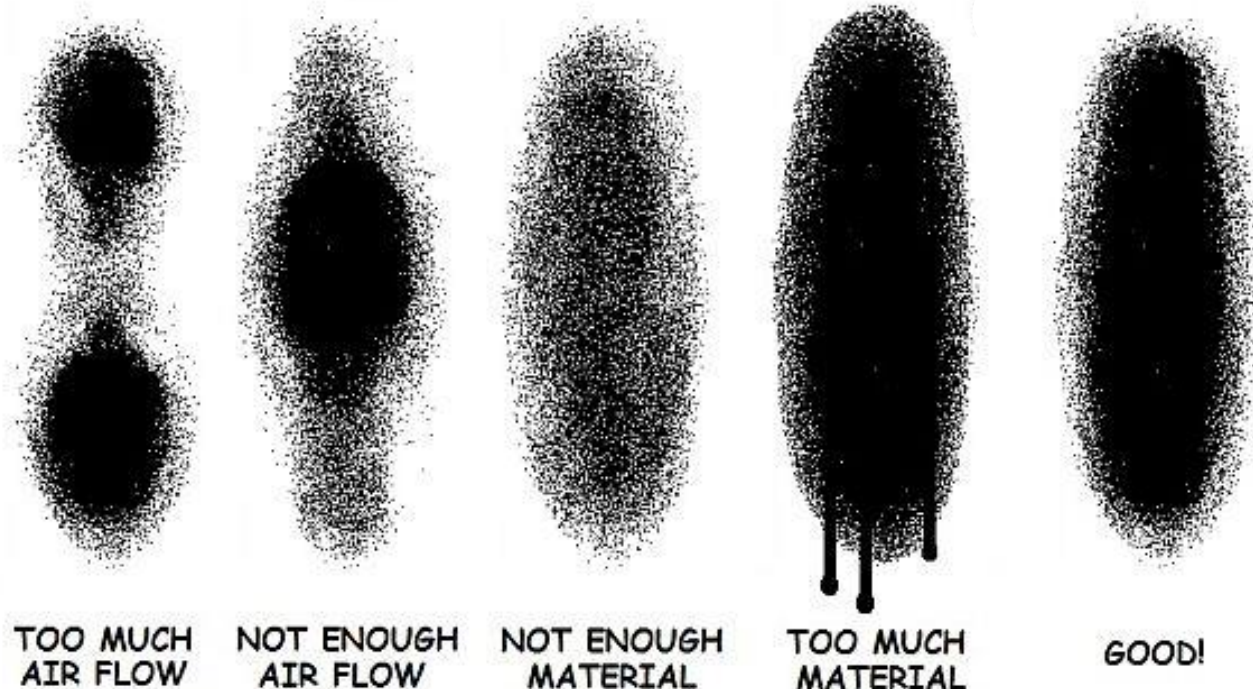


Spray Gun Cleaning

- 8-10
 - Enclosed; optional ventilation of work space while adding or removing spray guns
 - Solvent recirculation
 - O&M manual
- 6H
 - Enclosed spray gun washer or
 - Cleaning without creating solvent mist

8-10/6H Written Training Program

- Can be provided by supplier or technical college
- Must include hands-on demonstration





6H Written Training Topics

- Spray gun selection and set up
 - Selection and set up
 - Usage
 - Maintenance
- Spray booth and filter maintenance
- Description of 6H requirements



8-10 Training

- May 1
- New employee or reassigned to this activity
 - Supervised by a trained employee
 - Training within 180 days
- Records
 - Date completed
 - List of persons, name & activity, and topics
 - Trainer certifies proficiency for each trainee



6H Training

- New employee or reassigned to this activity
 - Supervised by a trained employee
 - Training within 180 days
- Records for each technician
 - Date & location
 - Name and topics
 - Certificate of completion



6H Refresher Training

- Every 5 years
- For many, January 10, 2016, was the deadline



6H Reporting

- Initial notification
- Notification of compliance status – benefit of the ERP screening checklist
- Annual notification of changes report, if applicable, for changes in information previously submitted, prior to March 1
- Petition for exemption, optional



6H Record Keeping

- Initial notification
- Filter efficiency according to ASHRAE 52.1
(American Society of Heating, Refrigeration and Air Conditioning Engineers)
- “HVLP” stamped on the gun or other documentation
- Training certification for each employee
- Annual usage of paint strippers containing Methylene Chloride



Other 6H Requirements

- Spray booth
- Preparatory station – misc. parts & subassemblies
- Mobile enclosure
- Negative or positive pressure ventilation
- Dry filter system at least 98% efficient
- PM control required by 326 IAC 6-3-1 if coating application rate exceeds 5 gallons/day



Portable Prep Station





Portable Prep Station





Parts & Subassemblies





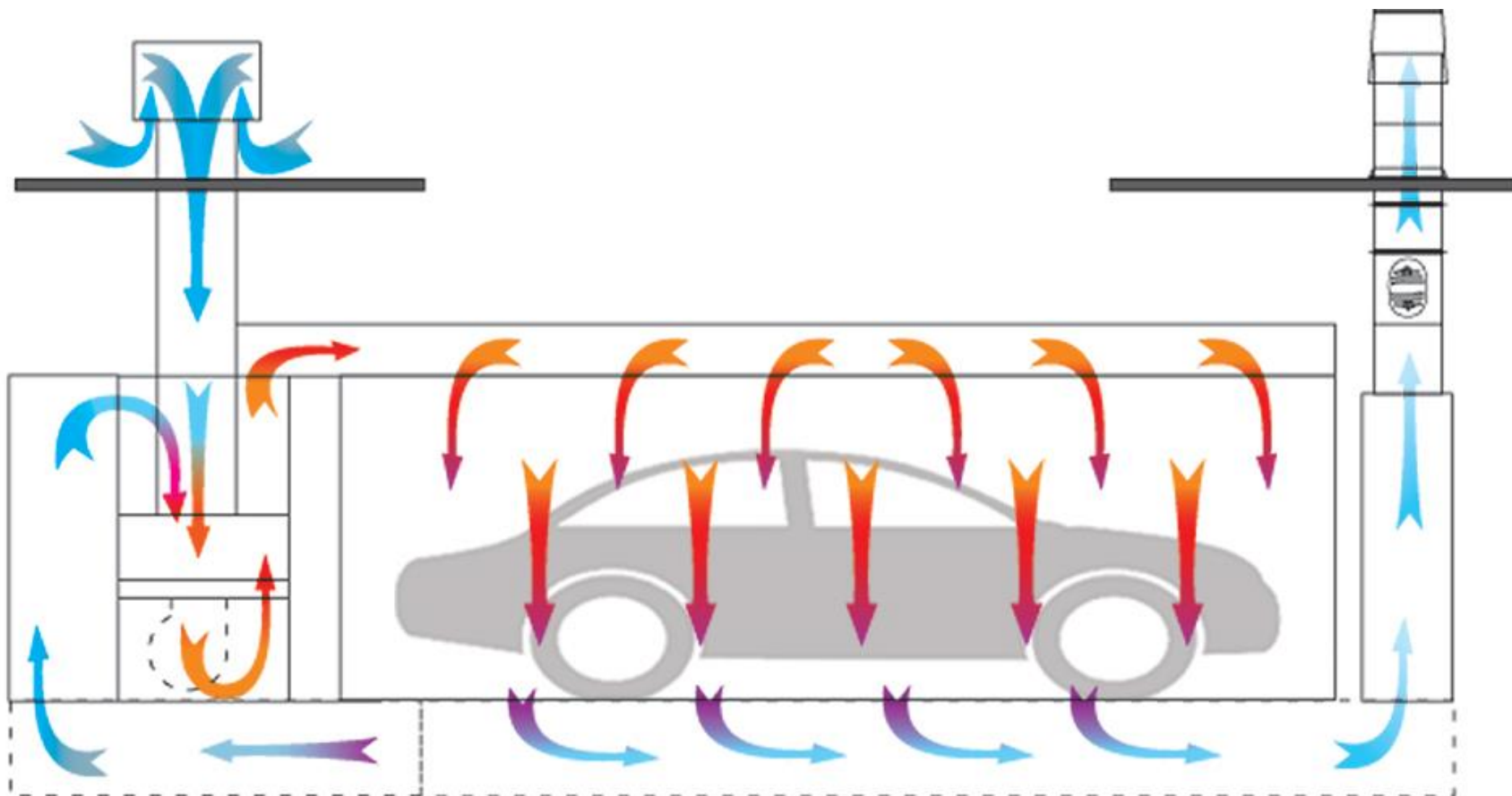
Booth & Prep Station





Fully Enclosed Positive Pressure

0.05 inches water gauge pressure or less





ERP Sampling Results

- Painting inside booth
- Ventilated enclosures
- 98% dry filters
- Completed training & records kept
- Records kept for MeCl usage
- Required notifications submitted



Areas for improvement

- Enhancing painter training
- Base rates of compliance were low
- Knowledge of coatings that contain HAP
- Communicating management practices where MeCl usage is very low



Region 5 complaint driven letters

- Form letter
- Mailed as recent as 2016
- Identifies where to seek assistance
- Identifies option to petition EPA for an exemption



How We Can Help

- Referrals
- Invitations
- Online - idem.IN.gov/ctap/2360.htm
- All of our services are free, voluntary & confidential



Internet Resources

Alternative Control Techniques Document:
Automobile Refinishing, April 1994 -

www3.epa.gov/airquality/ctg_act/199404_voc_epa453_r-94-031_autobody_refinishing.pdf



Internet Resources

Reduction of Volatile Organic Compound
Emissions from Automobile Refinishing,
October 1988 -

www3.epa.gov/airquality/ctg_act/198810_voc_epa450_3-88-009_automobile_refinishing.pdf



Internet Resources

42 U. S. Code § 7412 - Hazardous air pollutants -

www.law.cornell.edu/uscode/text/42/7412



Internet Resources

- Paint Stripping & Miscellaneous Surface Coating Operations at Area Sources - www.epa.gov/stationary-sources-air-pollution/paint-stripping-and-miscellaneous-surface-coating-operations
- Collision Repair Campaign - www.epa.gov/collision-repair-campaign



Internet Resources

- Collision Repair/Auto Refinishing Shops - idem.IN.gov/ctap/2360.htm
- Autobody shop environmental compliance assistance - dnr.wi.gov/topic/SmallBusiness/Resources/AutoBodyShop.html



Internet Resources

Self-certification Checklist for Autobody
Refinishing Shops -

idem.IN.gov/ctap/files/ctap_auto_collision_self-cert_checklist.doc



Contact Information

Mark Stoddard

(317) 233-1039

mstoddar@idem.IN.gov